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PRELIMINARY SURVEY OF THE Littorina littorea
(The Periwinkle) IN SOUTH-EAST AND SOUTH
COASTS OF IRELAND.

LITTORINA
FISHERIES RESEARCH CENTRE,
ARDCATH, DUBLIN,
CASTLENOCK,
Co. DUBLIN.

by

MICHAEL CROWLEY.

Fisheries Division
Dublin.
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INTRODUCTION

Of the three periwinkles Littorina littorea, Littorina saxatilis and Littorina littoralis only L. littorea, is of commercial value. The other two species are used mainly for decorative purposes and not for human consumption.

Periwinkles are found on rocky shores and also on muddy intertidal zones which have a good cover of seaweed. They spend most of their existence in the intertidal zone below high water of neap tide and are found associated with the brown sea weeds such as bladderwrack (Ascophalium nodosum) and also the green sea weeds (Enteromorpha spp.). These weeds provide them with both shelter and food. Periwinkles browse on the sedentary animals which live on sea weed and on the weed itself. The investigations were confined to the size and quality of the periwinkles from Wexford, Waterford, Dungarvan, Youghal and Cork Harbours. The numbers per kilogram and the percentage meat yield were determined together with length frequency distribution.

RESULTS

Table I shows the percentage length distribution of periwinkles in 5 mm group. The largest periwinkles examined were those from Cork Harbour, of which 100% were over 25 mm and the smallest were found in Wexford Harbour where only 1% were over 25 mm. The number of periwinkles per kilogram together with the average meat yield (%) are given in Table II. Although the meat yields are remarkably uniform, vastly different numbers of periwinkles would have to be handled from the different areas, about 1300 from Wexford Harbour as compared with about 700 from Cork Harbour, to provide the same quantity of meat.

Table 1 Percentage length distribution of periwinkles in five mm blocks

Length distribution (mm).

Harbour	10-14	15-19	20-24	25-29	30-34
Wexford		22	77	1	
Waterford (Tramore)		1	70	29	
Dungarvan		1	80	19	
Youghal		4	65	31	
Cork				88	12

Table II (a) Average number of periwinkles per kilogram
(b) Average percentage meat for each area

Harbour	(a) Average No. per kg.	(b) Average % Meat
Wexford	275	21.4
Waterford (Tramore)	265	21.5
Dungarvan	225	21.0
Youghal	191	20.3
Cork	155	21.8

DISCUSSION

It is difficult to quantify amounts present hence no attempts have been made to do this, rather it was felt that the quality of the periwinkles in these areas should be investigated. Therefore, the size range distribution together with the meat yields of their species were recorded.

The quantities of periwinkles gathered, and their values for 1970, 1971 and 1972 are shown below.

<u>Year</u>	<u>Tons</u>	<u>Value</u> £
1970	1,870	149,701
1971	2,289	195,535
1972	2,407	225,513

Summary

- 1 The periwinkle industry is a very important part of the shellfish industry.
- 2 Periwinkles from the areas of the south and south east coast vary very little in meat yield but greatly in size.

Reference

- Gibson, F A (1972) Export and Import of Shellfish 1961-1970
Fishery Leaflet No 38.
- Crowley, M (1973) Report on Inshore surveys around the Irish Coast
Fishery Leaflet No 47.